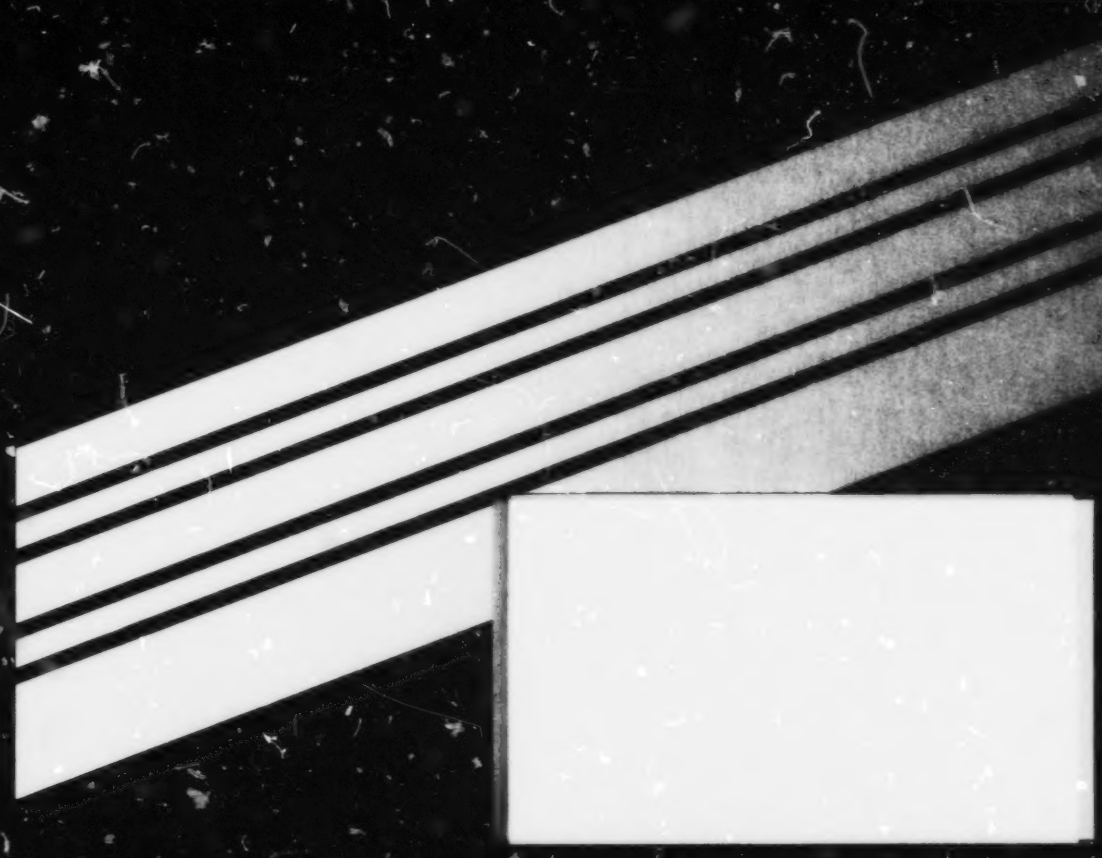
Programs Branch User Report



Solicitor General Canada
Ministry Secretariat

CHRISTOPHER MURPHY
SENIOR RESEARCH OFFICER
POLICE RESEARCH SECTION

ASSESSING POLICE PERFORMANCE: ISSUES, PROBLEMS AND ALTERNATIVES

NO. 1985-19

This working paper, prepared in 1985, is made available as submitted to the Ministry.

This working paper is available in French. Ce document de travail est disponible en français.

INTRODUCTION

Perhaps the greatest obstacle to implementing a system of indicators for measuring police performance is the lack of uniformity and clarity about the role and objectives of policing in Canada. In Canada, as in many other Western Societies, the role and objectives of policing must be reworked in order to sort through changing demands and sometimes conflicting directions. At the same time, the police are increasingly aware of the need to improve and demonstrate police productivity, as evidenced, for example, at the Ministry workshop on Police Productivity and Performance (1978). At this workshop Chief Lunney of the Edmonton Police Department underscored the importance of developing performance measures and acknowledged that the standard productivity concepts, are as important to policing as they are in other areas:

> There are two kinds of indicators, effectiveness and efficiency. Effectiveness is achieving defined results or outcomes without regard for money or manpower. Efficiency is achieving any given result with a minimum expenditure of effort. More succinctly, effectiveness is doing the right things, efficiency is doing things right. Productivity is a combination of the two concepts.

Productivity, then, is measured on the bases that a desired result was achieved (the effectiveness question) and that the minimum possible resources were consumed to achieve it (the efficiency question).

From a systems perspective, productivity questions address the relationships among inputs, activities, and outcomes. Although the standard productivity concepts apply to policing it is unfortunately clear that many traditional "performance" measures, are actually measures of activities (e.g., number of arrests, traffic tickets, etc.). They are not adequate measures of police performance.

2. Conceptual Problems in Defining the Objectives of Policing:

Unless the objectives of policing are clearly specified, it is not possible to relate inputs or activities to outcomes. For example, the R.C.M.P. Act (1970) describes the mandate of the R.C.M.P. as:

> To perform all duties that are assigned to peace officers in relation to the preservation of the peace, prevention of crime, and of offences against the laws of Canada and the laws in force in any Province in which they may be employed, and the apprehension of criminals and offenders and others who may be lawfully taken into custody.

Within this broad mandate are at least four identifiable, but not necessarily directly measurable objectives: preservation of peace, prevention of crime, law enforcement and criminal apprehension. This general statement of purpose does not indicate the relative importance of any of these objectives nor how resources should be deployed to achieve them.

The definition proposed by the 1974 Task Force on Policing in Ontario poses similiar difficulties:

> We recommend that the police forces develop a balance among the functions of response referral, prevention, public education, crime solving and law enforcement which reflects the needs of each community in terms of the objectives of crime control, protection of life and property and maintenance of peace and order. (:19)

These examples illustrate three fundamental problems in assessing police performance objectives: 1) The police have broad, multiple objectives which they are expected to meet; 2) there is no formula for determining the relative importance of these objectives; 3) there is no straightforward way to measure the degree of achievement in relation to each objective.

II. Measuring Effectiveness

(a) Aggregate Measures

The majority of studies which assess police performance have focussed on the impact of police activities on crime. Despite the multiple goals of policing and the complex nature of the relationships between police activities and crime rates, most of these efforts are based on a simple input-output relationship, which assumes a direct and simple relationship between policing and crime rates. In these studies, inputs typically include police budgets, number of personnel, and some type of police strategy, e.g., patrol, criminal investigation or the use of technology. Typical output measures use official crime rates to measure the impact of police on crime.

Most studies of the police/crime rate relationship aggregate measures of police resources/activities and crime rates across jurisdictions. These studies typically reveal that increases in police resources are positively related to crime rates and negatively related to clearance rates. These correlational analyses do little to clarify the impact of police activities on crime and fail to account for many intervening variables, including the likelihood that given types of crime will be reported to the police, and that police practices vary in terms of recording and classifying criminal incidents and investigating criminal offenses.

Crime rates are, of course, influenced by factors other than police activity. Size of community, demographic factors, economic conditions, population stability etc., have been shown to have significant impact on rates of crime. Unless the impact of police activities can be separated from the effects of social and economic factors, and trends in reporting crime, than crime rates cannot be legitimate measures of police effectiveness or used as justifications by the police for increased resources.

Compounding the problem is that crime rates as outcome measures of the actual rate of crime or criminal activity in a community have been seriously challenged by the findings from victimization surveys which reveal that official crime rates greatly underestimate both the amount of crime and the distribution of criminal activity. Crime rates only measure crimes reported to the police; thus performance measures using official crime rates can only be used as indicators of reported, not actual, crime.

Furthermore official crime rates are the product of a complex discretionary recording process by the police. Despite the efforts by Statistics Canada and the Canadian Centre for Justice Statistics, in conjuction with Canadian police forces, to standardize the compilation of crimes reported to the police, (Uniform Crime Reports), police departments vary markedly in the ways they respond to, classify, and record incidents reported to them. Comparisons of crime rates between police jurisdictions are suspect, as variations in police recording practice alone can produce significant differences in crime rates between jurisdictions.

In any case only 20% to 40% of police work involves investigation of crimes and apprehension of suspects. Maintenance of community peace and order, social service and crime prevention, all legitimate objectives of policing, are ignored by measures based on formal arrest.

(b) Individual Performance Measures

Because of the difficulty in obtaining and developing measures which reflect the outcome of activities, the police typically rely on internal performance measures to assess individual or sub-unit outputs. Although often used as indicators of police effectiveness, measures such as clearance rates, caseload, traffic citations, etc., which are simply workload measures, reveal only the quantity of such activities and little about effectiveness.

The use of clearance rates as a measure of police effectiveness is an example of this practice. Clearance rates can be described as the percentage of crime known to the police which have been "solved" through an arrest or otherwise. Clearance rates have been widely used as a measure of individual and organizational efficiency based on the assumption that an arrest or charge is an indicator of effective police work. However, clearance rate as a measure of efficiency has conceptual and methodological limitations.

A review of 1982 national canadian police statistics reveal widely varying clearance rates for different categories of crime. Thus, for example, property offences such as break and enter have a 19.8% clearance rate, theft over $200, 9.5%, while murder has an 82.5% clearance rate, and common assault 76.8%. Proactive or police discovered crimes such as prostitution (97.6%), federal statutes (90.2%), provincial statutes (97.6%) have extremely high clearance rates. These variations in clearance rates tell more about the nature of the crime, citizen reporting and police recording practices than about police effectiveness. As the Canadian Urban Victimization Survey demonstrates, citizen reporting rates vary substantially for different types of crime: crimes such as break and enter (64% reported) and motor vehicle theft (70%) have high reporting rates while sexual assault (38%) and personal theft (29%) have relatively low reporting rates. A high rate of citizen reporting combined with a lack of victim or witness identification combine to produce low clearance rates; however, "proactive" police initiated occurrences, such as prostitution, narcotics, provincial traffic, etc., have high clearance rates because these criminal incidents are recorded only when the police have identified one or more suspects and laid a formal charge. Clearance rates can only be interpreted in the context of reporting patterns and crime dynamics.

Any performance measure can to some degree be manipulated through changes in recording or other practices that give the appearance of good performance but which may, and frequently do, modify performance in undesirable ways. This is particularly so of problematic measures which the members of the organization themselves judge to be inappropriate and unreasonable. For example, clearance rates can be inflated by recording only some percentage of reported cases. Solknick found in one United States jurisdiction that 20% of crime reports were not recorded by the police. By reducing the number of reported crimes and recording only "soluble" crimes, clearance rates can be increased.

Clearance rates, arrests, caseload measures, traffic tickets etc., when used as performance measures have also been criticized because they indicate little about the quality of the police action taken. Arrests, traffic citations, and large caseloads are not always indicators of good policing. Sometimes it may indicate the reverse, particularly if these activities are not related to broader outcome measures. Simply issuing a large number of traffic tickets may have little impact on traffic safety; what is more important is the types of infractions being policed. Arrests that do not lead to prosecution or convictions may be a negative indicator of performance. Pressure from police managers to "get the numbers up", i.e. to increase the clearance rate, can lead to undesirable practices and to inefficiencies at other levels of the system such as prosecution and courts when weak cases are brought forward.

The failure to develop performance measures for activities that are not crime related has meant that a wide range of activities go unmeasured and frequently, as a consequence, unrewarded, either internally or externally. The resulting distortion of both the complexity and the actual nature of police activity reinforces the notion that "real" policing is exclusively concerned with enforcement.

III. Towards Innovative Policing Strategies

In recent years, there have been some encouraging developments in examining the efficiency and effectiveness of traditional policing practices in reponding to call for service, preventive patrol and criminal investigation.

1. Police Response Time: The time between receipt of a call for service and arrival of police on the scene is a traditional measure of efficiency, on the assumpion that rapid response is related to greater likelihood of apprehending suspects and greater citizen satisfaction. This strategy has been supported by computer aided dispatch systems (CAD) and by replacing foot patrols with radio-dispatched patrol cars. However, the utility of rapid response for most calls for service has been seriously questioned by a major study by the Police Foundation in the U.S. This study shows:

   a) Rapid response is related to outcome (i.e. arrest) in only a small percentage of cases, such as spouse abuse, robberies in progress, etc.

b) In the majority of cases rapid police responses is not a critical factor in making an arrest, aiding and interviewing witnesses or completing an initial investigation: often in cases of theft, vandalism, and break and enter, the police are not called until well after the event.

c) Citizen satisfaction with police response time is determined by whether police arrive within the time specified by the dispatcher, rather than by minimizing response time. Thus while police have aimed at a 2 - 5 minute response time, the public is satisfied with response times of 30 minutes or more for many non-urgent situations, such as minor property offenses, which have already occurred sometime prior to being reported.

The major implications of this work in regard to police productivity are that

a) technological and managerial efforts to reduce response time will have a negligible impact on many crimes but a very important impact on others;

b) formal procedures and systems (differential response models) to discriminate between calls and allocate appropriate responses will produce more productive patrol allocation; and

c) productivity can be increased by focusing on improving citizen reporting and police classification of calls for service.

2. **Mobile Police Preventive Patrol:** Approximately 70% of all police resources are allocated to the patrol function. Routine "random" car patrol is the basic mode of general police service delivery in most police departments. The philosophy and methodology of preventive patrol can be described as follows:

> Traditional preventive patrol uses uniformed police officers who patrol at random in assigned geographical areas. They respond to calls for service and, in the remaining available time, drive their vehicles or walk their beats, for preventive patrols create a feeling of police omnipresence and this deters potential criminals. By intercepting crimes in progress, the general patrol officer on the beat is thought to be in a good position to respond rapidly to a call for service.
>
> The traditional view holds that conspicuous patrol is the most effective way to deter the potential criminals, (Farmer, 1978).

Perhaps the most serious challenge to the effectiveness of rapid response-random patrol strategies was posed by the Kansas City Preventive Patrol Experiment (Kelling et al, 1974). This study showed that substantial variations in the levels of random patrol had no significant empirical effect on reported crime, apprehension, victimization, citizen satisfaction or citizen safety.

New strategies offer the possibility of more productive use of patrol resources. Zone policing, "directed patrol", targeting areas of criminal activities identified through crime analysis; increased use of foot patrol in some areas to increase police-citizen contacts, and of one-officer car patrols and enhanced investigative responsibilities for patrol officers may

increase both the efficiency and effectiveness of patrol with appropriate experimentation and evaluation. As an example of the potential payoffs to be gained several studies have demonstrated that under normal operating conditions one officer car patrols are as safe if not safer, more efficient and more cost effective, than two man patrol cars. The difference in cost for Canadian police departments between the staffing of one versus two man cars is approximately $150,000 per car, per year.

3. Criminal Investigation

The management of criminal investigation has also been the subject of recent research. Studies in the U.S., by the Rand Corporation (Greenwood et. al. 1970) and the Police Executive Research Forum (Eck 1983) and by the Solicitor General of Canada (1982-1984) stimulated efforts to improve the productivity of detective divisions.

The Research findings can be summarized as follows:

- differences in investigative training, staffing, workload, and procedures appear to have no appreciable effect on crime, arrest, or clearance rates;
- the method by which police investigators are organized (i.e. team policing, specialist vs. generalist, patrolman - investigators) cannot be related to variations in crime, arrest and clearance rates;

- substantially more than half of all serious recorded crime receive no more than superficial attention from investigators;
- an investigator's time is largely consumed in reviewing reports, documenting files, and attempting to locate and interview victims on cases that experience shows will not be solved;
- the single most important determinant of whether or not a case will be solved is the information the victim supplies to the immediately responding patrol officer;
- investigative strike forces have a significant potential to increase arrest rates for a few difficult target offences.

Further research has identified a number of ways of improving the management of criminal investigation in order to improve police productivity. These innovations include:

- enhancing the primary investigative role of patrol officers;
- case screening models using "solvability" factors;
- better case management supervision;
- police - prosecution liaison;
- decentralized detective functions linking detectives with patrol zones; and
- automated crime analysis to facilitate targeting of criminal activities and apprehension of suspects.

IV. Issues in Evaluating Police Performance

1. Measures of police performance should be based on clear distinctions among input, activities, and outcomes

Most evaluation models have used crude input-output measures to establish police effectiveness. This has resulted in simplistic and often inaccurate interpretations of police productivity. Unless there is clear specification of and distinction among inputs, activities and outcomes, the factors required to assess police productivity and the related concepts of efficiency and effectiveness will not be identified.

2. Assessment of police effectiveness must be based on a clear statement of policing goals and objectives

To evaluate policing it is necessary to have a clear statement of its objectives. What we have instead are broad encompassing statements of policing philosophy with often conflicting and unrealistic goals. Debates focus on the relative merits of proactive and reactive approaches, community based and traditional approaches, etc. Once a policy statement of broad objectives have been agreed upon, the choice of performance standards and measures will be less subject to controversy.

3. **Outcome measures of police effectiveness should include external measures of community or client satisfaction with police services**

The police have traditionally and increasingly performed a broad social service role; however, most "measures" of effectiveness (i.e. arrest, clearance rates) use criteria, developed internally by the police, which say little about how the community rates police. Thus police activities need to be assessed, in part, using measures of community satisfaction. Such measures, developed from community surveys and interviews, might evaluate

- citizen perceptions of community safety
- fear of crime
- citizens and victims ratings of police and police services,
- public satisfaction with police responses to calls for service, etc.

Additional measures could assess the resources expanded in response to non-crime calls for service and the efficiency and effectiveness of this range of activity.

4. **Police performance measures must reflect the full range and complexity of police activities and goals**

No single performance measure can capture the full range of police activities. A variety of new measures must be developed

developed to reflect non-crime related activities that constitute a major portion of police work, including general order maintenance, peace keeping, crime prevention, general service and information activities.

5. **Crime effectiveness measures should distinguish between crime types**

Performance and effectiveness measures must be based on the understanding that many crimes are beyond the direct control of the police and that reductions or increases in the incidence of these offences are functions of social and institutional factors outside the control of the police.

Research on the link between police activities and crime reduction often fails to distinguish between the types of crime that are amenable to police influence and those that require innovative approaches involving additional actors in the community. Given that the police have more impact on certain types of crime than others, measures of police performance should specify the degree to which police efforts can reasonably be expected to have an impact.

6. **Assessment of police effectiveness in suppressing crime should not be based solely on comparisons of crime rates between police jurisdictions**

Because of the variability of practices in the collection and recording of official crime statistics by different police forces , the comparative use of crime data from two jurisdictions requires contextualizing data and multiple data sources. Longitudinal comparative data make it is easier to identify and control contextual variables and therefore may be particularly useful for assessing performance.

CONCLUSION

Until recently there has been little interest in developing models and measures of police performance. Experience has shown that simple performance measures such as arrest or clearance rates provide at best a limited understanding of policing and at worst oversimplify and distort the actual nature and impact of police work. Research has made it clear that policing is a complex enterprise, consisting of varied activities often with vague and conflicting goals. Attempts to assess the efficiency and effectiveness of policing must capture this conceptual and empirical complexity.

At the conceptual level it is necessary to refine our understanding of what the police do, how they do it and with what effects. The broad, abstract and sometimes conflicting goals of policing require translation into more specific objectives. The more specific the policy statement, the easier it is to develop measures and methods of assessing efficiency and effectiveness.

The development of greater conceptual clarity through more precise policy articulation will require that research provide more sophisticated analytic models and statistical methods capable of informing the policy process. Research can contribute to the development of police performance measurement by continuing to clarify the critical elements that have an impact on police objectives. By refining, for example, our understanding of the factors that influence whether a specific type of crime is preventable or detectable it will be possible to set more realistic and precise performance standards for a particular crime or work category. Only on the basis of crime specific knowledge can, for example, clearance rate increases or decreases have meaning as performance measures.

Research and development must focus on innovative and more effective modes of resource management and deployment. By assisting in the design, implementation and evaluation of innovative demonstration projects, it is possible to contribute to the widespread adoption of more productive policing methods.

Police recognition of the need for more adequate methods and measures of police performance coupled with recent development in information technology and police research suggest that with continued efforts by police, policy makers and researchers it will be possible to help the police manage their resources more effectively and promote a more sophisticated understanding of the police and police work.

A final general caution takes us back to the beginning. Once objectives have been defined and agreed, the choice of performance indicators narrows dramatically. Giving policy issues primacy ensures that technology and measurement decisions do not unduly shape the activities being measured. In short, the selection of performance indicators is not a technical question; it is part of the larger question of what we want our police to be.